Maryland Weekly Influenza Surveillance Activity Report

A summary of influenza surveillance indicators reported to DHMH for the week ending December 17, 2016

Prepared by the Infectious Disease Epidemiology and Outbreak Response Bureau
Infectious Disease Bureau – Prevention and Health Promotion Administration
Maryland Department of Health and Mental Hygiene

The data presented in this document are provisional and subject to change as additional reports are received.

SUMMARY

During the week ending December 17, 2016, influenza-like illness (ILI) intensity in Maryland was **MINIMAL** and there was **LOCAL** geographic activity. The proportion of outpatient visits for ILI reported by Sentinel Providers increased from last week, while the proportion reported by Maryland Emergency Departments remained similar to the prior three weeks. The proportion of MRITS respondents reporting ILI continued a three week decline. The proportion of specimens testing positive for influenza at clinical laboratories increased, continuing a six week climb. Nineteen specimens tested positive for influenza at the DHMH lab. Seventeen influenza-associated hospitalizations and four respiratory outbreaks were reported. Nationally, influenza activity is increasing, but remains low overall.

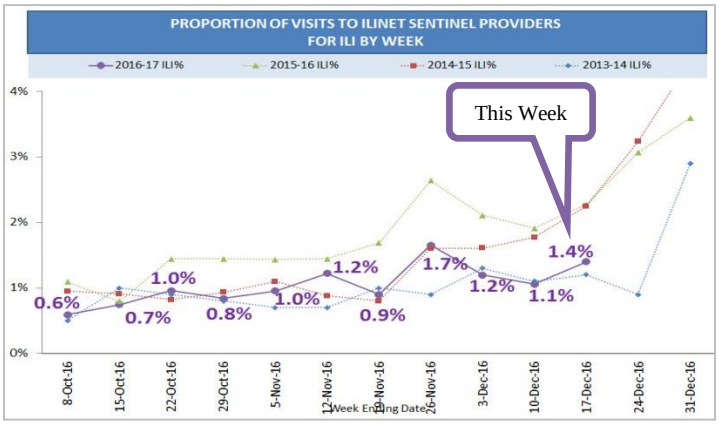
Click here to visit our influenza surveillance web page

ILI Intensity Levels
✔ Minimal
Low
Moderate
High

Influenza Geographic Activity
No Activity
Sporadic
✔ Local
Regional
Widespread

ILINet Sentinel Providers

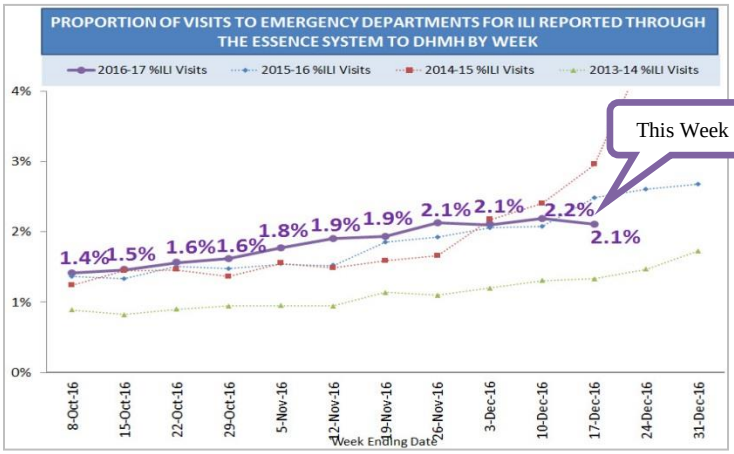
Thirty-eight sentinel providers reported a total of 7,865 visits this week. Of those, 110 (1.4%) were visits for ILI. This is **below** the Maryland baseline of **2.2%**.



ILI Visits To Sentinel Providers By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	38 (35%)	29 (31%)	317 (31%)
Age 5-24	29 (26%)	35 (38%)	366 (36%)
Age 25-49	24 (22%)	18 (19%)	207 (20%)
Age 50-64	16 (15%)	6 (6%)	92 (9%)
Age ≥ 65	3 (3%)	5 (5%)	41 (4%)
Total	110 (100%)	93 (100%)	1023 (100%)

Visits to Emergency Departments for ILI

Emergency Departments in Maryland reported a total of 45,204 visits this week through the ESSENCE surveillance system. Of those, 951 (2.1%) were visits for ILI.



ILI Visits To Emergency Departments By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	351 (37%)	393 (40%)	3209 (35%)
Age 5-24	244 (26%)	237 (24%)	2500 (27%)
Age 25-49	199 (21%)	195 (20%)	2089 (23%)
Age 50-64	85 (9%)	99 (10%)	831 (9%)
Age ≥ 65	72 (8%)	66 (7%)	574 (6%)
Unknown	--	--	--
Total	951 (100%)	990 (100%)	9203 (100%)

Neighboring states' influenza information:

Delaware	http://dhss.delaware.gov/dph/epi/influenzahome.html
District of Columbia	http://doh.dc.gov/service/influenza
Pennsylvania	http://www.health.pa.gov/My%20Health/Diseases%20and%20Conditions/I-L/Pages/Influenza.aspx#.V-LtaPkrJD8
Virginia	http://www.vdh.virginia.gov/epidemiology/influenza-flu-in-virginia/influenza-surveillance/
West Virginia	http://dhhr.wv.gov/oeps/disease/flu/Pages/fluSurveillance.aspx

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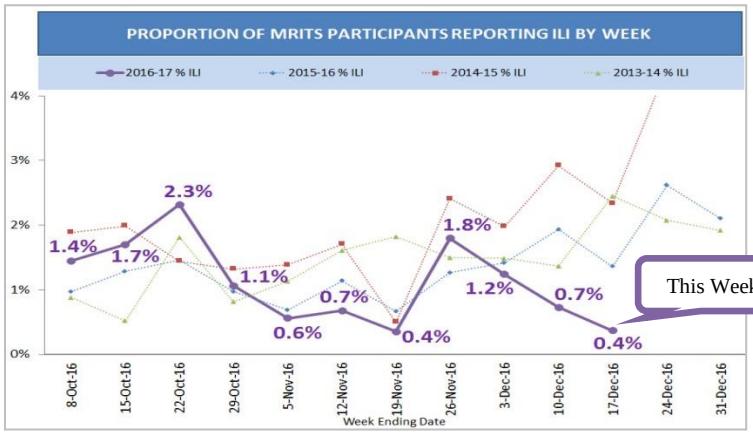
Community-based Influenza Surveillance (MRITS)

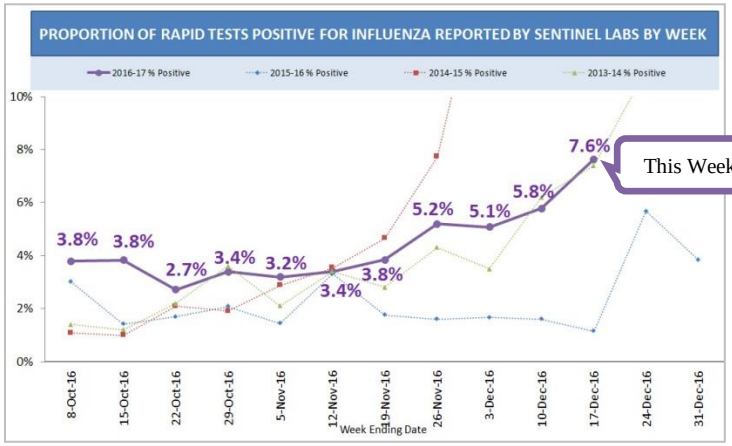
MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 540 residents responded to the MRITS survey this week. Of those, 2 (0.4%) reported having ILI and missing a cumulative 10 days of regular daily activities.



MRITS Respondents Reporting ILI By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	--	1 (25%)	3 (4%)
Age 5-24	2 (100%)	1 (25%)	25 (36%)
Age 25-49	--	1 (25%)	19 (28%)
Age 50-64	--	1 (25%)	15 (22%)
Age ≥ 65	--	--	7 (10%)
Total	2 (100%)	4 (100%)	69 (100%)

Clinical Laboratory Influenza Testing

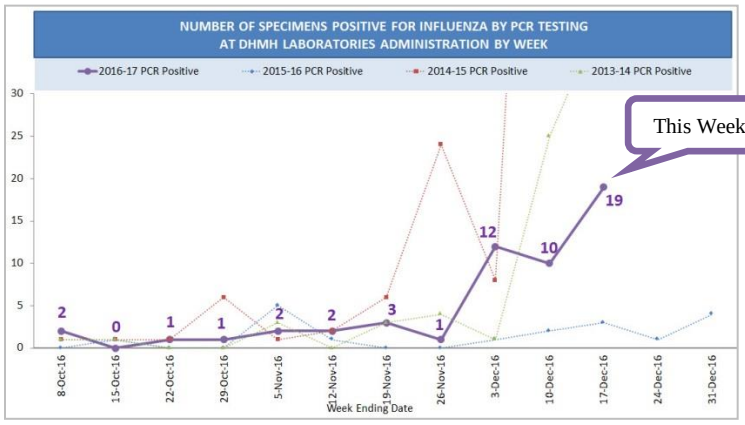
Fifty clinical laboratories reported performing 1,454 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 111 (7.6%) were positive for influenza. Of those testing positive, 73 (65.8%) were influenza Type A and 38 (34.2%) were influenza Type B. The reliability of RIDTs depends largely on the conditions under which they are used. False-positive (and true-negative) results are more likely to occur when the disease prevalence in the community is low, which is generally at the beginning and end of the influenza season and during the summer.



Positive Rapid Flu Tests by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A	73 (66%)	41 (57%)	276 (53%)
Type B	38 (34%)	31 (43%)	246 (47%)
Total	111 (100%)	72 (100%)	522 (100%)

State Laboratories Administration Influenza Testing

The DHMH Laboratories Administration performed a total of 98 PCR tests for influenza and 19 (19.4%) specimens tested positive for influenza. Of those testing positive for influenza, 15 (78.9%) were Type A (H3), 2 (10.5%) were positive for Type A (H1), and 2 (10.5%) were positive for Type B (Yamagata). PCR testing is more reliable than RIDT. The DHMH testing identifies subtypes of influenza A, information that is not available from the RIDT results. The table below summarizes results by type and subtype.



Positive PCR Tests by Type (Subtype)	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A (H1)	2 (11%)	3 (30%)	8 (15%)
Type A (H3)	15 (79%)	5 (50%)	40 (75%)
Type B (Victoria)	--	--	--
Type B (Yamagata)	2 (11%)	2 (20%)	5 (9%)
Total	19 (100%)	10 (100%)	53 (100%)

Where to get an influenza vaccination

Interested in getting a flu vaccine for the 2016-17 influenza season? Go to http://phpa.dhmh.maryland.gov/influenza/Pages/getvaccinated.aspx and click on your county/city of residence. You will be redirected to your local health department website for local information on where to get your flu vaccine.

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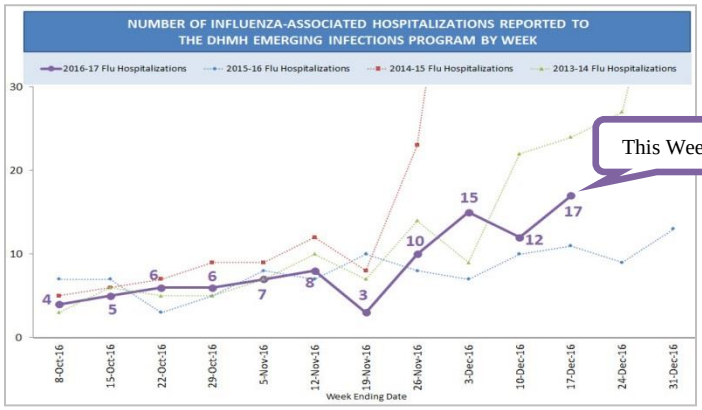
Influenza-associated Hospitalizations

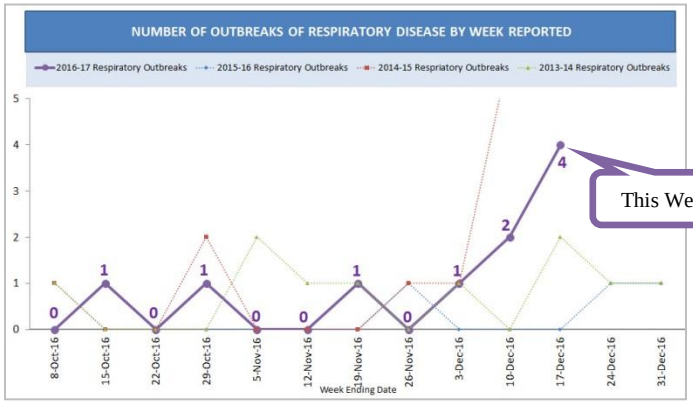
There were 17 influenza-associated hospitalizations reported this week. (A person with an overnight hospital stay along with a positive influenza test of any kind, e.g. RIDT or PCR, is considered an "influenza-associated hospitalization" for purposes of influenza surveillance.)



Influenza-Associated Hospitalizations by Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	--	1 (8%)	7 (8%)
Age 5-17	--	--	4 (4%)
Age 18-24	2 (12%)	--	3 (3%)
Age 25-49	--	--	7 (8%)
Age 50-64	6 (35%)	2 (17%)	23 (25%)
Age ≥ 65	9 (53%)	9 (75%)	49 (53%)
Total	17 (100%)	12 (100%)	93 (100%)

Outbreaks of Respiratory Disease

There were four respiratory outbreaks reported to DHMH this week. (Disease outbreaks of any kind are reportable in Maryland. Respiratory outbreaks may be reclassified once a causative agent is detected, e.g. from ILI to influenza.)



Respiratory Outbreaks by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Influenza	--	--	1 (10%)
Influenza-like Illness	3 (75%)	2 (100%)	6 (60%)
Pneumonia	1 (25%)	--	3 (30%)
Other Respiratory	--	--	--
Total	4 (100%)	2 (100%)	10 (100%)

National Influenza Surveillance (CDC)

- During week 50 (December 11-17, 2016), influenza activity increased slightly in the United States.
- Viral Surveillance: The most frequently identified influenza virus subtype reported by public health laboratories during week 50 was influenza A (H3). The percentage of respiratory specimens testing positive for influenza in clinical laboratories increased.
- Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- Influenza-associated Pediatric Deaths: Two influenza-associated pediatric deaths were reported that occurred during the 2015-2016 season.
- Influenza-associated Hospitalizations: A cumulative rate for the season of 2.4 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported.
- Outpatient Illness Surveillance: The proportion of outpatient visits for influenza-like illness (ILI) was 2.3%, which is above the national baseline of 2.2%. Five regions reported ILI at or above their region-specific baseline levels. One state and Puerto Rico experienced high ILI activity, two states and New York City experienced moderate ILI activity, ten states experienced low ILI activity, 37 states experienced minimal ILI activity, and the District of Columbia had insufficient data.
- Geographic Spread of Influenza: The geographic spread of influenza in Puerto Rico was reported as widespread; Guam, the U.S. Virgin Islands and 13 states reported as regional; the District of Columbia and 26 states reported local activity; and 11 states reported sporadic activity.